(poly)alkylene imine, a (poly)alkylene amine, a polyoxazilin and a (poly)alkylene sulfide, and

(c) a substance coupled to the linker, wherein a stable interaction exists between the surface structural element (A) of the monomer of the plastics material of the surface and the linker structural element (B) of the linker that which comprises hydrogen bonds and which cannot be reversed by pH values in the range of from 2 to 13 or temperatures up to 60°C,

wherein the coupled substance is a physiologically or <u>pharmaceutically</u> active substance.

- 36. (Presently amended) The interactive system according to claim 35, wherein the physiologically active substance is selected from the group consisting of a protein, a nucleic acid, a cellular signal substance, a partner of a biological or physiological affinity pair, a synthetic nickel-nitrilotriacetic acid (NiNTA) complex, a synthetically produced pharmacon, a synthetically produced active ingredient, and a marker for a biological or synthetic substance.
- 37. (Previously added) The interactive system according to claim 36, wherein the protein is selected from the group consisting of antigens, antibodies, tumor markers, surface antigens, ligands, receptors, surface-active cell fragments of bacteria, viral proteins and immune messenger substances.
- 38. (Previously added) The interactive system according to claim 36, wherein the marker is selected from the group consisting of a fluorescent or chemiluminescent substance, an expression sequence code (EST) and an enzyme.
  - 39. CANCELLED
  - 40. CANCELLED
  - 41. CANCELLED

- 42. (Previously added) The interactive system according to claim 35, wherein the surface is a membrane, a porous or solid microparticle, a magnetic microparticle, a filter mat, a fibrous material, a spun material or a combination thereof, or a coating made from a natural or synthetic substance.
- 43. (Previously added) The interactive system according to claim 35, wherein the system is comprised within a capillary tube system, a filter for physiological liquids, a dialyzer, a physiological replacement fluid, an enzyme delivery system, an arthroplasty or vascular prosthesis, or an artificial organ.
- 44. (Previously added) The interactive system according to claim 35, wherein the physiologically active substance is selected from the group consisting of an anticoagulant, a metabolically active enzyme, an antibiotic and a synthetic pharmacon.
- 45. (Previously amended) An The interactive system according to claim 44, wherein the anticoagulant is selected from the group consisting of heparin, hirudin, directly acting antithrombins and prothrombin.
- 46. (Presently amended) The interactive system according to claim 35, wherein the coupled substance further comprises <u>an agent selected from</u> an enzyme and a pharmaceutical composition.
- 47. (Previously amended) A composition comprising an interactive system according to claim 35.
  - 48. CANCELLED
  - 49. **CANCELLED**
- 50. (Previously amended) The composition according to claim 47, wherein the composition is a pharmaceutical composition.

- 51. (Previously amended) The interactive system according to claim 35, adapted for treatment of disorders selected from the group consisting of metabolic diseases, coagulation defects, viral, bacterial, mycotic infections, parasitic infections and malignant diseases.
- 52. (New) The interactive system according to claim 35, wherein the linker is a (poly)ethylene glycol.
- 53. (New) The interactive system according to claim 35, wherein the substance is coupled to the linker using a reactive derivative.
- 54. (New) The interactive system according to claim 35, wherein the reactive derivative is selected from the group consisting of succinimidal succinate, succinimidal propionate, nitrophenyl carbonate, tresylate, epoxides, aldehydes, isocyanates, maleimides.
- 55. (New) A foodstuff comprising a composition, the composition comprising an interactive system wherein the interactive system comprises:
- (a) one surface of a plastic material from monomers containing at least one structural element (A) that is derived from a carboxylic acid, the plastic material selected from the group consisting of a polymethacrylate polymer, a polyvinyl ester polymer, and copolymers thereof,
- (b) a linker with at least one structural element (B) capable of establishing a hydrogen bond, the linker selected from the group consisting of a (poly)alkylene glycol, a (poly)alkylene imine, a (poly)alkylene amine, a polyoxazilin and a (poly)alkylene sulfide, and
- (c) a substance coupled to the linker, wherein the coupled substance is a physiologically or pharmaceutically active substance,

wherein a stable interaction exists between the structural element (A) of the monomer of the plastics material of the surface and the structural element (B) of the linker that comprises hydrogen bonds and which cannot be reversed by pH values in the range of from 2 to 13 or temperatures up to 60°C,